

Remarks

Claims 1-57 remain pending in the application and stand rejected. Claims 17-19 and 37 are amended in this Response. The Assignee respectfully traverses the rejection and requests allowance of claims 1-57.

Claim Amendments

Claims 17-19 are amended by replacing the word "comprising" with the word "comprises" for grammatical purposes.

Claim 37 is amended to repair an inadvertent joinder of the words "execute a".

Accordingly, none of the current amendments involve a reduction in scope of the pending claims.

Claim Rejection Under 35 U.S.C. § 102

Claims 1-3, 9-15, 20-22, 28-33, 39-41 and 47-52 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,751,707 to Voit et al. (hereinafter "Voit"). The Assignee respectfully traverses the rejection in light of the following discussion.

Independent claim 1 provides the following:

1. *A method of designing a first antenna system in a communication system, the method comprising:
retrieving demographic information of customers from a first database system;
determining communication traffic based on the demographic information;
retrieving parameters of a second antenna system from a second database system;
determining an antenna system configuration for the first antenna system based on the communication traffic and the parameters of the second antenna system; and
determining a performance of the first antenna system in response to determining the antenna system configuration for the first antenna system.*

The Office action indicates that Voit discloses claim 1 in its entirety, and then relates several passages of Voit to various provisions of claim 1. However, the passages of Voit cited in the Office action do not teach or suggest any of the provisions of claim 1, as Voit and the current application address vastly different systems, methods and the like. Further, some provisions of claim 1 are not referenced in the Office action, and thus have not been shown to be anticipated by Voit.

Generally, Voit discloses a communication system that employs "the use of an integrated services control point (ISCP) to coordinate processing of at least certain narrowband calls via interactions through a wireless broadband network." Column 1, lines 20-23. Essentially, a customer's broadband terminal, such as a set-top terminal for a television set, can be used to alert a customer to information, such as caller ID information, concerning a call being received by the customer's phone. Column 4, lines 10-19, and column 6, lines 14-28. In addition, the user may be able to input information into the set-top terminal to control further processing of the call. Column 4, lines 20-32, and column 6, lines 29-35. Accordingly, nowhere does Voit discuss "a method for *designing* a first *antenna system* for a communication system," as Voit does not address antenna system design in any fashion.

More specifically, the Office action states that "Voit discloses a MMDS communication system of more than two antenna systems (Fig. 4, and col. 23/lines 5-21) that based on the demographic information or customer profile information collected from each antenna system (col. 10/line 62 to col. 11/line 24), the headend or control database system can configure the antenna configuration for the receiving stations or subscribers (Fig. 7) based on the traffic communication or population/density of the users/viewers/subscribers within the service areas (as shown in Figs. 5A & 5B, and col. 23/lines 5-67; and col. 11/line 15 to col. 12/line 60 as the headend system serves its normal network broadband functions and the wireless broadband network and it can determine the traffic flows based on the customer's need and services)." Pages 2-3 of the Office action. However, these cited passages do not relate in any way to the subject matter of claim 1.

For example, the "subscriber profile information" referred to Voit apparently describes information relating to a particular customer regarding various call processing conditions, such as "triggers" (column 10, lines 62-66, for example), and thus does suggest or teach the "demographic information" of claim 1.

Also, the Voit antenna configurations of Figs. 5A (using omnidirectional antennas TX1-TX4) and Fig. 5B (employing omnidirectional antenna TX1 and directional antennas TX2-TX4) simulcast broadband program signals to provide overlap coverage of a protected area PA, as well as provide substantial coverage of a larger maximum area MA. Column 22, line 36, to column 23, line 67. However, Voit neither teaches nor suggests that the antenna configuration is "based on the communication traffic and the parameters of the second antenna system," as provided for

in claim 1. Instead, Voit utilizes the antenna configurations of Figs. 5A and 5B regardless of varying communication traffic or any other parameters.

In addition, other provisions of claim 1, such as, for example, "retrieving parameters of a second antenna system from a second database system," and "determining a performance of the first antenna system in response to determining the antenna system configuration for the first antenna system" are not addressed in the Office action, and are not discussed in Voit..

Based on at least the foregoing reasons, the Assignee believes claim 1 is not anticipated or made obvious by Voit, and an indication that claim 1 is allowable is respectfully requested.

In addition, independent claims 20 and 39 contain similar provisions relating to a system and a software product for designing a first antenna system in a communication system. Therefore, based on the above remarks, the Assignee believes claims 20 and 39 are allowable for at least the reasons discussed above in support of claim 1, and such indication is respectfully requested.

Further, since claims 2, 3 and 9-15 depend from independent claim 1, claims 21, 22 and 28-33 depend from independent claim 20, and claims 40, 41 and 47-52 depend from independent claim 39, the Assignee asserts that each of these sets of dependent claims are allowable for at least the reasons provided above for their respective independent claims.

Therefore, the Assignee respectfully requests that the rejection of claims 1-3, 9-15, 20-22, 28-33, 39-41 and 47-52 be withdrawn.

Claim Rejection Under 35 U.S.C. § 103

Claims 4-8, 16-19, 23-27, 34-38, 42-46 and 53-57 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Voit in view of U.S. Patent No. 5,924,039 to Hugenberg et al. (hereinafter "Hugenberg"). The Assignee respectfully traverses the rejection.

Generally, Hugenberg discloses "a two-way digital [cellular] network using a polarization orthogonal to the polarization of a larger digital broadcast video cell system." Column 3, lines 29-31. Therefore, the digital cellular network may be overlaid onto a digital broadcast video network, allowing the cellular network to be completely autonomous from the broadcast video network. Column 3, line 32-36. As a result, both services may employ the same frequency spectrum by way of reducing interference between the networks via signal polarization. Column 3, lines 36-39. Thus, like Voit, Hugenberg does not disclose or make

obvious a method, system or software product for *designing* a first *antenna system* for a communication system, as Hugenberg does not address antenna system design in any way. Therefore, Hugenberg does not teach or suggest any of claims 4-8, 16-19, 23-27, 34-38, 42-46, and 53-57.

Further, claims 4-8 and 16-19 depend from independent claim 1, claims 23-27 and 34-38 depend from independent claim 20, and claims 42-46 and 53-57 depend from independent claim 39. Since each of independent claims 1, 20 and 39 have been shown allowable in the foregoing discussion, the Assignee contends that claims 4-8, 16-19, 23-27, 34-38, 42-46 and 53-57 are allowable for at least the same reasons as those provided above for their respective independent claims, and such indication is respectfully requested.

Given the foregoing discussion, the Assignee respectfully requests that the rejection of claims 4-8, 16-19, 23-27, 34-38, 42-46 and 53-57 be withdrawn.

Conclusion

The prior art made of record and not relied upon (i.e., U.S. Patent No. 6,310,661 to Arsenault, U.S. Patent No. 6,400,697 to Leung et al. and U.S. Patent No. 6,052,582 to Blasing et al.) have been reviewed and are not considered relevant to the current invention as claimed.

Based on the above remarks, the Assignee submits that claims 1-57 are allowable. Additional reasons in support of patentability may exist, but such reasons are omitted in the interests of clarity and brevity. The Assignee respectfully requests allowance of claims 1-57.

The Assignee believes no additional fees are due with respect to this filing. However, should the Office determine additional fees are necessary, the Office is hereby authorized to charge Deposit Account No. 21-0765.

Respectfully submitted,

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